\$/058/62/000/002/022/053 A058/A101

AUTHORS:

Koshkin, N. I., Obraztsov, V. I., Yakovlev, V. F.

TITLE:

Flow method for the ultrasonic cleaning of microwires

PERIODICAL:

Referativnyy zhurnal, Fizika, no. 2, 1962, 44, abstract 26336 (V sb. "Primeneniye ul'traakust. k issled. veshchestva", v. 14,

Moscow, 1961, 21-31)

TEXT: There was developed an experimental setup for the ultrasonic cleaning of moving microwire. The setup enables one to carry out cleaning at wire speeds of motion up to 25-30 m/min. Ultrasonic cleaning improves the insulating quality of microwave enamel several times over. It was established that under the conditions of the problem that is set (the degree of contamination of the wire), it is possible to use as the working liquid any organic solvent that more or less satisfactorily dissolves fats of vegetable origin. It is held that in some cases cleaning can be carried out in ordinary tap water. Cleaning in water gives good results especially in those cases when the degree of fat contamination is low.

[Abstracter's note: Complete translation]

Card 1/1

8/058/63/000/001/111/120 A062/A101

AUTHOR:

Zipir, A. D., Yakovlev, V. F.

TITLE:

Systematic error of the pulse method

PERIODICAL:

Referativnyy zhurnal, Fizika, no. 1, 1963, 72, abstract 1Zh428 (In collection: "Primeneniye ul'traskat. k issled. veshchestva".

no. 15, Moscow, 1961, 49 - 53)

TEXT: A theoretical analysis is carried out by means of a spectral representation of a pulse. It is shown that the systematic error, introduced by the pulse method into the absorption coefficient measured by the amplitude decrease, pertaining to the signal carrier frequency, can be reduced to a value considerably less than the experiment errors, if utilizing signals of a definite length.

[Abstracter's note: Complete translation]

Card 1/1

PEREPECHKO, I.I.; YAKOVLEV, V.F.

Measurement of the absorption of ultrasound in gases by means of an interferometer. Akust. zhur. 7 no.1:101-102

(MIRA 14:4)

1. Moskovskiy oblastnoy pedagogicheskiy institut imeni N. K. Krupskoy.

(Ultrasonic waves)

(Interferometer)

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001961920010-2"

PEREFECHKO, I.I.; YAKOVIEV, V.F.

'Ultrasonic absorption in monatomic gases. Akust.zhur. 7 no.2:266(MIRA 14:7)
267 '61.

1. Moskovskiy oblastnoy pedagogicheskiy institut imeni N.K.Krupskoy.
(Absorption of sound) (Cases, Rare)

YAKOVLEV, V.F., kand. tekhn. nauk, dotsent

Studying the contact stresses in wheel and rail elements due to the action of vertical and tangential forces. Shor. trud. LIIZHT no.187:3-89 '62. (MIRA 16:8)

24,1300 (1327,1482)

\$/046/62/008/001/015/018 B125/B102

AUTHORS:

Voytonis, V. V., Yakovlev, V. F.

TITLE:

Remarks on an interferometric method of measuring ultrasonic

absorption

PERIODICAL: Akusticheskiy zhurnal, v. 8, no. 1, 1962, 131 - 132

TEXT: The conditions laid down by I. I. Perepenko, V. F. Yakovlev (Akust. zh., 1961, 7, 1, 101 - 102) in the approximate calculation of the ultrasonic absorption coefficient from the tension variation in the quartz of the interferometer are omitted. With the aid of the formulations valid for $r \gg \lambda/4$, V_1 min = V_1 th(αr_1 + β) + V'', V_2 min = $-V_1$ th(αr_2 + β) + V'', the solution $\alpha = \frac{1}{r_2-r_1}$ (Arth\NR - Arth\N\R (4) is obtained from

 $V_{1 \max} = V_0' \coth{(\alpha r_1 + \beta)} + V'', \quad V_{1 \min} = V_0' \cot{(\alpha r_1 + \frac{\alpha \lambda}{4} + \beta)} + V'',$ $V_{2 \max} = V_0' \cot{(\alpha r_2 + \beta)} + V'', \quad V_{2 \min} = V_0' \cot{(\alpha r_2 + \frac{\alpha \lambda}{4} + \beta)} + V''.$ (1)

Card 1/3

S/046/62/008/001/015/018 B125/B102

Remarks on an interferometric ...

$$N = \frac{V_{2 \text{ min}} - V_{1 \text{ min}}}{V_{1 \text{ max}} - V_{2 \text{max}}} = \text{th } \varphi_{1} \cdot \text{th } \varphi_{2},$$

$$V_{1 \text{ max}} - V_{1 \text{ min}} = \text{th } \varphi_{2} \cdot \text{th } \varphi_{2},$$
(2)

 $R = \frac{V_{1 \max} - V_{1 \min}}{V_{2 \max} - V_{2 \min}} \approx \frac{\operatorname{th} \varphi_{2}}{\operatorname{th} \varphi_{1}}.$

. and

$$R = \frac{V_{1 \max} - V_{2 \min}}{V_{2 \max} - V_{1 \min}} = \frac{\coth \varphi_1 - \tan \varphi_2}{\cot \varphi_2 - \cot \varphi_1} = \frac{\cot \varphi_2}{\cot \varphi_1}.$$
 (3)

th², $_1$ = N/R, th² ϕ_2 = NR, or αr_1 + β = Arth\N/R, αr_2 + β = Arth\NR. $\alpha r + \beta$ need not be assumed small for (3). The only restriction remaining for (4), $r \gg \lambda/4$, can be observed in media with very strong absorption. In this case, the restriction can be avoided by using the two adjacent minimalying close to V_{max} . This corresponds to the replacement of the hyperbolic tangent curves lying between two adjacent minima by a straight line. There is 1 Soviet reference.

Card 2/3

s/046/62/008/001/015/018 B125/B102

Remarks on an interferometric ...

Moskovskiy oblastnoy pedagogicheskiy institut im. N. K. Krupskoy (Pedagogical Institute imeni N. K. Krupskaya of the Moskovskaya Oblast') ASSOCIATION:

SUBMITTED:: June 9, 1961

Card 3/3

43202

S/046/62/008/004/002/017 B108/B186

24,18,00

Bashlachev, Yu. A., Voytonis, V. V., Yakovlev, V. F.

TITLE:

AUTHORS:

An interferometer with two crystal transducers

PERIODICAL:

Akusticheskiy zhurnal, v. 8, no. 4, 1962, 412-414

TEXT: An acoustic interferometer with two generating crystals makes it possible to increase the reaction and to study gases and liquids at higher frequencies than with an ordinary interferometer. Each of the two transducers emits ultrasonic waves directed towards the other, thereby superimposing the emitted and reflected waves. It is shown that the superimposing the emitted and reflected waves. It is shown that the interference maxima of both waves appear at every integral multiple of λ and not at every half-integral multiple as in the case of ordinary interferometers. If the amplitudes of the waves emitted from the two transducers are not equal, additional maxima will arise at every $r = (2n+1)\lambda/2$. The absorption coefficient of the fluid under examination can be found from the spacing between the maxima and from the impedance of the interferometer. The accuracy attained with such a two-crystal interferometer is better than with ordinary interferometers. There are 1 figure and 1 table.

Card 1/2

An interferometer with two...

S/046/62/006/004/002/017 B108/B186

ASSOCIATION: Moskovskiy pedagogicheskiy institut im. N. K. Krupskoy (Moscow Pedagogical Institute imeni N. K. Krupskaya)

SUBMITTED:

November 30, 1961

Card 2/2

CIA-RDP86-00513R001961920010-2" APPROVED FOR RELEASE: 03/14/2001

Voytonis, V. V.,

TITLE:

A free quartz interferometer

PERIODICAL:

Referativnyy zhurnal, Fizika, no. 1, 1963, 67 - 68, abstract 1Zh403 (In collection: "Primeneniye ul traskuetk issled. V shchestva.", no. 16, Moscow, 1962, 117 - 120)

The authors report on preliminary results of an experimental test on the possibility of utilizing a free quartz for a study of ultra-sound absorption. An exemplary shape is given of the frequency characteristic of a quartz radiator fixed in the quartz holder of an interferometer. The cause of the various resonance properties of different zones of the radiator surface may reside in the effect of the quartz holder on it. The frequency characteristic was plotted for the quartz cleaned off from the metal coating and placed in an air condenser, with one face of the quartz lying on the lower plate of the condenser and the other being free. Judging on the characteristic, which should a very sharp peak, the quartz is in this case similar to a piston redistor. For

Card 1/2

A free quartz interferemeter

8/058/63/000/001/102/120 A062/A101

verification, an interferometer whose schematic diagram is given, was constructed. Its main feature was the presence of a wire grid at 3 mm from the quartz surface for conserving the homogeneity of the electric field in the space between the plates. The diffraction effects are small enough to be neglected. Primary measurements were carried out in argon on the frequency 497 kc/s with the aid of argon with the described interferometer are presented in the form of a graph. Calculation of the absorption coefficient, carried out by methods set forth in the article, permits the conclusion that the correction to the indications of the interferometer lies within the error limits. In measurements by a usual coefficient.

VB

I. Nikolayeva

[Abstracter's note: Complete translation]

Card 2/2

S/046/63/009/001/022/026 B104/B186

AUTHORS:

Voytonis, V. V., Yakovlev, V. F.

TITLE:

Calculation of the ultrasound absorption coefficient from the structure of the peaks of the reaction curve of an interferometer

FERIODICAL: Akusticheskiy zhurnal, v. 9, no. 1, 1963, 116 - 118

TEXT: The calculation of the ultrasound absorption coefficient of gases is based on the theory of interferometers and may be used without any assumptions as to the value of α . Making use of results obtained by U. P. Mezon (P'yezoelektricheskiye kristally i ikh primeneniye v ultra-akustike - Piezoelectric crystals and their utilization in ultraacoustics, M., IL, 1952, p. 279)

$$\alpha = \frac{i}{r_3 - r_1} \left(\operatorname{Arth} \frac{Z_{\lambda/8} - Z_{3 \min}}{Z_{3 \max} - Z_{\lambda/8}} - \operatorname{Arth} \frac{Z_{\lambda/8} - Z_{1 \min}}{Z_{\max} - Z_{\lambda/8}} \right), \tag{5}$$

is obtained, where Z_{max} and Z_{min} are the impedances of the interferometer at $r = 2n\lambda/4$ and $r = (2n+1)\lambda/4$, respectively; r is the distance between Card 1/2

S/046/63/009/001/022/026 B104/B186

Calculation of the ultrasound ...

emitter and reflector. $Z_{\sqrt{8}}$ is the impedances at $r=(2n+1)\sqrt{8}$. If the high-frequency voltage at the emitter is measured (I. I. Perepechko, V. F. Yakovlev, Akust. zh., 1961, 7, 1, 191 - 102),

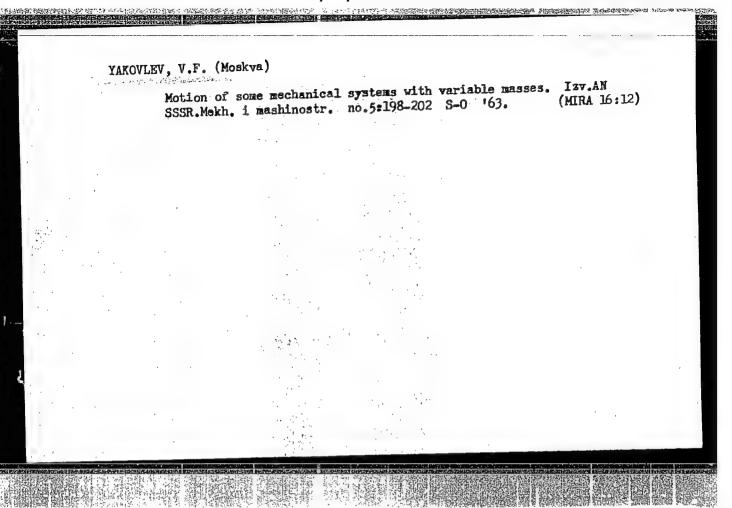
$$\alpha = \frac{1}{r_3 - r_1} \left(Arth \frac{V_{\lambda/8} - V_{3 \min}}{V_{3 \max} - V_{\lambda/8}} - Arth \frac{V_{\lambda/8} - V_{1 \min}}{V_{1 \max} - V_{\lambda/8}} \right).$$

is obtained.

ASSOCIATION: Moskovskiy oblastnoy pedagogicheskiy institut im. N. K. Krupskoy (Moscow Oblast' Pedagogical Institute imeni N. K. Krupskaya)

SUBMITTED: June 8, 1962

Card 2/2



AMELIN, S.V., doktor tekhn. nauk, prof.; SMIRNOV, M.P., kand. tekhn. nauk, dotsent; YAKOVLEV, V.F., kand. tekhn. nauk, dotsent

Effect of the narrowing of the gauge on the state of stress of railroad tracks and on the smoothness of train movement. Shortrud. LIIZHT no.191:3-27 '63.

State of stress and deformations of type R50 switches of the 1/11 marking at a gauge width of 1518 millimeter on the running track and of 1530 millimeter on the track leading into sidings. Ibid.:28-107

Switches of the 1/11 marking for high-speed traffic in the straight direction. Ibid.:108-123 (MIRA 16:12)

BASHLACHEV, Yu.A.; YAKOVLEV, V.F.

Oscillatory relaxation in thiophene vapors. Akust. zhur. 10 no.2:241-242 '64. (MIRA 17:6)

1. Moskovskiy oblastnoy pedagogicheskiy institut imeni N.K. Krupskoy.

L 17524-65

ENT(m)/EMP(v)/EMP(t)/EMP(k)/EMP(b)

Pf-4 AFTC(p) JD/HM

ACCESSION NR:

AP5002651

\$/0095/64/000/009/0017/0018

AUTHOR: Yakovlev, V. F.

TITLE: Use of centralized feeding of joint preheaters during tube welding in

the Yakut Region

SOURCE: Stroitel'stvo truboprovedov, no. 9, 1964, 17-18

TOPIC TAGS: welding equipment

ABSTRACT: The brief note describes a simple feeder system consisting of a tank, compressor connection, manometer, and multiple connection tube suitable for simultaneous servicing of several preheaters of tube joints. The device proved to be very successful for welding pipe joints at very low ambient temperature. Orig. art. has 1 diagram.

ASSOCIATION: Trest Nefteprovodmontazh, Ufa (Trust for Petroleum Installation)

SUBMITTED: CO

ENCL: 00

SUB CODE: IE

NO REF SOV: 000

OTHER: 000

JPRS

Card 1/1

L 46310-65 EWT(1)/I/EWP(k) Pf-4/Pi-4

ACCESSION NR: AR5012304

UR/0058/65/C00/003/H081/H081

SOURCE: Ref. zh. Fizika, Abs. 3Zh498

AUTHOR: Leonova, L. A.; Yakovlev, V. F.

TITIE: Ultrasonic relaxation absorption in mixtures of ethyl acetate and acetic

acid

CITED SOURCE: Uch. zap. Irkutskiy gos. ped. in-t, vyp. 21, 1964, 102-109

TOPIC TAGS: ultrasonic relaxation absorption, ultrasonic absorption, liquid ultrasonic absorption

TRANSLATION: Ultrasonic absorption in mixtures of two relaxing liquids (acetic acid and ethyl acetate) was investigated. Graphs showing the relation between α/ν as a function of frequency for this mixture have been obtained and variation of the position of the maximum of this as a function of concentration (3 and 12% acetic position of the maximum of this as a function of concentration (3 and 12% acetic position of the maximum of this as a function of concentration (3 and 12% acetic position of the maximum of this as a function of concentration (3 and 12% acetic position of the maximum of this as a function of concentration (3 and 12% acetic position of the maximum of this as a function of concentration (3 and 12% acetic position of the maximum of this as a function of concentration (3 and 12% acetic position of the maximum of this as a function of concentration (3 and 12% acetic position of the maximum of this as a function of concentration (3 and 12% acetic position of the maximum of this as a function of concentration (3 and 12% acetic position of the maximum of this as a function of concentration (3 and 12% acetic position of the maximum of this as a function of concentration (3 and 12% acetic position of the maximum of this as a function of concentration (3 and 12% acetic position of the maximum of this as a function of concentration (3 and 12% acetic position of the maximum of this as a function of concentration (3 and 12% acetic position of the maximum of this as a function of concentration (3 and 12% acetic position of the maximum of this as a function of concentration of the maximum of this as a function of concentration (3 and 12% acetic position of the maximum of this as a function of concentration of the maximum of this as a function of concentration of the maximum of this as a function of concentration of the maximum of this as a function of concentration of the maximum of this as a function of concentration of the maximum of this as a function of concentration of the maximum of this as a functi

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L 46310-65

ACCESSION NR: AR5012304

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a system of three equations of the type: $\alpha/\nu^2 = B + A/(1 + \nu^2/\nu_f^2)$, relaxation parameters A, B and v_t were found. The relation of a/v to frequency for a 3%-mixture calculated by this method is presented. For an increase of the concentration of acetic acid the maximum of this function increases, and the relaxation frequency shifts to the low frequency side. A table of values of frequency and relaxation time τ are presented: for an increase of the concentration of acetic acid τ increases. A graph of v_p as a function of concentration is shown. The reason for the variation of v_p with concentration in mixtures of acetic acid and in associated liquids is analyzed. It is postulated that an unassociated solvent decreases the activation energy and less time is required for recovery of equilibrium. According to calculations the enthalpy of activation in 8.85 kcal/mol for acetic acid. ktal/mot for a mixture of us.5% acetic acid in ethyl acetate and 3.01 kcal/mot for 8.24% ethyl abetate and abetic acid. The following conclusions are made: 1) results of ultrasonic absorption measurements in a mixture of acetic acid and etcyl acrtate in the 1-10 mc range is described well by relaxation theory with one relaxation time; 2) calculation of α/ν as a function of frequency yields a maximum of this function in all investigated mixtures; 3) relaxation frequency is a function of acetic acid concentration. I. Nikolayeva

SUB CODE: GP

ENCL: 00

Card 2/2 0

	L 36103-66 EWT(m)/T/EWP(t)/ETI -IJP(c) JD/GD	
	AUTHORS: Koshkin, N. I.; Obraztsov, V. I.; Yakovlev, V. F.	-
į	0:1G: none 39 BH	
	TITLE: Continuous ultrasonic method for cleansing microwire	
i	DOURCE: Moscow. Oblastnoy pedagogicheskiy institut. Primeneniye ul'traakustiki k inmledovaniyu veshchestva, no. 14, 1961, 21-31	
	TOPIC TAGS: fine wire, fine wire technology, insulated wire, ultrasonic cleaning, with some opplication, microwise. ABSTRACT: A continuous ultrasonic method for cleansing microwires is presented. The method was developed by the Laboratory of Molecular Acoustics MOPI imeni N. K. Laupskaya (Laboratoriya moleculyarnoy akustiki LOPI) at the request of the Moscow Transmission Cables Industry. A schematic of the experimental installation is presented. The best results were obtained with a frequency of 700-1000 kilocycles and a power expenditure of 2-4 w/cm². The experimental results are tabulated (see Table 1). The use of common organic solvents as the working liquid was quite satisfactory and in some cases, when the level of natural oils on the surface of the wires was	
	relatively low, ordinary tap water could be used as the working liquid.	_
i	Card 1/2	

L 36103-66 ACC NR: AT60	13178			0 .
	No. of reel*	Average number of point defects in the insulation of a 15-m specimen		
		without ultrasound	with ultrasound	
	: 1	5,000	1,300	
	2	1,129 12,210	0,726	,
	4.	25,000	0,500	
	5	2,120	0,000	
•	. 6	1,470 3,703	0,367	
	8	0,433	0,133	
	* Each re	el had 8001000 m wi	re	
Table consi	1. Results of d	etermination of point 5 mm diameter.	defects of enamered	
Orig. art. ha SUB CODE: 14 Card 2/2	as: 2 tables and 5	figures. 22Apr61		
ماندور به دو یا هم همسه دستسسید رسو ها ها	and the same of the second of the second second second	and the second processing the second	and the second second region is as a payer second of the second	

L 3298h-66 ETT(1)/EWP(e)/FWT(m)/T/EWP(k) WH SOURCE CODE: UR/0058/65/000/011/H060/H060 ACC NR: AR6016264 AUTHOR: Kononenko, V. S.; Yakovlev, V. F. TITLE: Increase of accuracy of measurements of the damping of ultrasonic waves in liquids by a pulse method SOURCE: Ref. zh. Fizika, Abs. 11Zh414 REF SOURCE: Sb. Primeneniye ul'taakust. k issled. veshchestva. Vyp. 20. M., 1964, REF SOURCE: Sb. Primeneniye ul'taakust. k issled. veshchestva. Vyp. 20. M., 1964, REF SOURCE: To increase the accuracy of measurement of the damping of ultrasound at ABSTRACT: To increase the accuracy of measurement of the damping of ultrasound at frequencies 1 - 10 Mc, an attenuator of the mutual-induction type was used, with small inductance coils, transmitting (18 turns of copper wire 1 mm in dia) and receiving inductance coils, transmitting (18 turns of copper wire 1 mm in dia) and receiving (12 turns). The coil diameter was 18 mm. A matching resistance was connected to the (12 turns). The coil diameter was 18 mm. A matching resistance was connected to the (12 turns). The coil diameter was 18 mm. A matching resistance was connected to the (12 turns). The coil diameter was 18 mm. A matching resistance was connected to the (12 turns). The coil diameter was 18 mm. A matching resistance was connected to the (12 turns). The coil diameter was 18 mm. A matching resistance was connected to the (12 turns). The coil diameter was 18 mm. A matching resistance was connected to the (12 turns). The coil diameter was 18 mm. A matching resistance was connected to the (12 turns). The coil diameter was 18 mm. A matching resistance was connected to the (12 turns). The coil diameter was 18 mm. A matching resistance was connected to the (12 turns). The coil diameter was 18 mm. A matching resistance was connected to the (12 turns). The coil diameter was 18 mm. A matching resistance was connected to the (12 turns). The coil diameter was 18 mm. A matching resistance was connected to the (12 turns). The coil diameter was 18 mm. A matching resistance was connec	
SUB CODE: 20, 09/	

"APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001961920010-2

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L Oh094-67 EMP(j)/EMP(k)/FMT(1)/EMT(m)/T RM SOURCE CODE: UR/0058/66/000/003/E004/E004 AUTHOR: Bashlachev, Yu. A.; Yakovlev, V. F. TITLE: Propagation of ultrasound in furane vapor SOURCE: Ref zh. Fizika, Abs. 3E25 REF SOURCE: Tr. 1-y Mezhvuz. nauchn. konferentsii po primeneniyu molekul. akust. k resled. veshchestva i v nar. kh-ve. Tashkent, 1964, 35-43 TOPIC TAGS: ultrasonic propagation, relaxation process, ultrasound absorption ABSTRACT: Results are presented of measurements of velocity and absorption of ultrasound in C4H40 vapor in the region 0.4 - 40 Mcs/atm at temperatures 24 - 80°. The sound in C4H40 vapor in the region 0.4 - 40 Mcs/atm of the nature of the relaxarements are described by a relation of the relaxation type. The nature of the results are described by a relation of the relaxation of vibrational degrees of tion process is explained as being due to "dropping out" of vibrational degrees of freedom of the molecules. The character of the dependence of the relaxation period freedom of the molecules. The character of the dependence of the relaxation period on the density offers evidence that the relaxation in the gaseous and liquid phases is of the same type. [Translation of abstract] SUB CODE: 20	
kh Card 1/1	
	ALC: NO.

L 04088-67 EWP(k)/EWT(1)/T

ACC NR: AR6023296

SOURCE CODE: UR/0058/66/000/003/H069/H069

AUTHOR: Zipir, A. D.; Yakovlev, V. F.

TITLE: Use of multiple echo pulses for the measurement of absorption of ultrasound

in liquids aw

SOURCE: Ref zh. Fizika, Abs. 3Zh483

REF SOURCE: Tr. 1-y Mezhvuz. nauchn. konferentsii po primeneniyu molekul. akust. k issled. veshchestva i v nar. kh-ve. Tashkent, 1964, 181-186

TOPIC TAGS: ultrasound absorption, liquid property, acoustic damping, absorption coefficient, acoustic measurement, error minimization

ABSTRACT: A study of the multiple echo signal observed in liquids has shown that it can be used for the measurement of absorption of ultrasound in liquids at frequencies less than 5 - 7 Mcs, where other ultrasonic methods are difficult to use. Measurements were made in the 2.3 - 9 Mcs range in benzene, toluene, and ethyl alcohol, the attenuation for which was measured by many authors. Comparison with the published data has shown good agreement and permits the conclusion that this method can be used to investigate liquids with absorption coefficients (3 - 4) x 10⁻³ cm⁻¹, which is one orfer of magnitude lower than the values that can be handled by the usual pulse methods, and corresponds on the high-frequency side to values which are amenable to measurement with the aid of the reverberation method. The measurements were made with an x-cut quarts of 3.5 cm diameter. By increasing the quartz dia-

Card 1/2

T. 01,088-67 ACC NR: AR6023296

meter it is possible to broaden the frequency range. The measurement error decreases by a factor n compared with the error of the usual pulse method (n is the number of counted pulses). The measurement accuracy is 6 - 8% and increases with increasing frequency and attenuation to 3 - 5%. The path traversed by the pulse can amount to several meters, which greatly exceeds the Fresnel zone; if it is assumed that it is simply reflected from the reflector and from the receiver, then the correction for the divergence of the beam gives a value which is incompatible with the attenuation-measurement results. The authors therefore propose that re-radiation (re-broadcast) of the ultrasound signal occurs upon reflection from the quartz. Such an interpretation makes it possible to neglect the divergence of the beam on the additional path, and the attenuation in it greatly exceeds the attenuation due to the broadening, so that it can be disregarded. A. Shpil'kin. [Translation of abstract]

SUB CODE: 20

kh

Card 2/2

ACC NRI AR6023295

SOURCE CODE: UR/0058/66/000/003/1069/1069

AUTHOR: Voytonis, V. V.; Yakovlev, V. F.

TITIE: Calculation of the absorption coefficient of ultrasound from the structure

of the peak on the interferometer reaction curve

SOURCE: Ref zh. Fizika, Abs. 3Zh482

REF SOURCE: Tr. 1-y Mezhvuz. nauchn. konferentsii po primeneniyu molekul. akust. k issled. veshchestva i v nar. kh-ve. Tashkent, 1964, 175-180

TOPIC TAGS: ultrasound absorption, interference measurement, absorption coefficient, acoustic damping, error minimization

ABSTRACT: The possibility is considered of increasing the accuracy of measurement of attenuation of ultrasound with the aid of an interferometer, by taking into account the influence of certain uncontrollable errors, for example the frequency drift or the change in the generator amplitude. To eliminate the influence of such uncontrollable errors, it is proposed to carry out the calculation in terms of several quantities, which are measured almost simultaneously and depend little on the general variation of the envelope of the reaction curve. The calculation of the attenuation coefficient is based on three values of the high frequency-voltages across a quartz converter at points $r = (2n + 1)\lambda/8$, where λ is the sound wavelength and n is an integer. The proposed method is applicable for the reduction of the results of measurements of attenuation in argon and in xenon. V. Iyamov. [Translation of abstract]

SUB CODE: 20

Card 1/1

"APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001961920010-2

ACC NR. AP6029527

(N)

SOURCE CODE: UR/0046/66/012/003/0296/0300

AUTHOR: Voytonis, V. V.; Yakovlev, V. F.

ORG: Moscow Regional Pedagogical Institut im. N. K. Krupskaya (Moskovskiy oblastnoy pedagogicheskiy institut)

TITLE: Measurement of absorption of ultrasound in gases by an acoustic interferometer method

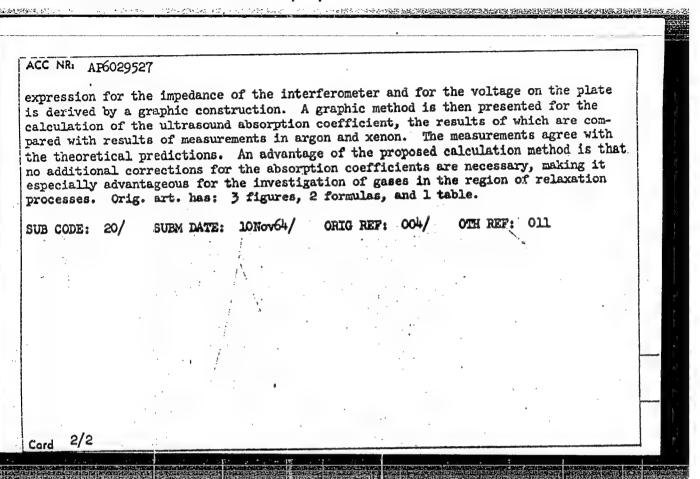
SOURCE: Akusticheskiy zhurnal, v. 12, no. 3, 1966, 296-300

TOPIC TAGS: ultrasound absorption, acoustic measurement, interference measurement, absorption coefficient, quartz crystal, argon, xenon, relaxation process

ABSTRACT: The authors point out that in spite of its high precision, the acoustic interferometer has not been used extensively for the measurement of absorption of ultrasound, and that experimental results obtained by various workers differ greatly from one another. The authors therefore analyze the causes of the low accuracy of interferometic measurements of the absorption coefficient, and suggest that the main reason is that even when the acoustic length of the interferometer is changed considerably, the difference between neighboring voltage minima amounts to only several per cent of the resonant peak of the interferometer. This small quantity can be subject to large error if the apparatus is not perfectly stable. The maximum and minimum values of the voltage on the quartz crystal at the extremal points are determined in terms of the voltage of the equivalent generator and the circuit parameters, and an

Card 1/2

UDC: 534.286-8/534.231.1-13



ACC NRI AR6013646

SOURCE CODE: UR/0058/65/000/010/E003/E003

AUTHOR: Yakovlev, V. F.; Seregina, V. I.

TITLE: Transfer phenomena in ideal gases

SOURCE: Ref. zh. Fizika, Abs. 10E16

REF SOURCE: Uch. zap. Mosk. obl. ped. in-ta, v. 147, 1964, 165-173

TOPIC TAGS: ideal gas, heat conductivity

TRANSLATION: Semiphenomenological qualitative considerations are used to make a change in the form of Aiken's expression for the coefficient of heat conductivity of a monoatomic ideal gas.

SUB CODE: 20

Card 1/1

AMELIN, S.V., double cokun. nauk, prof.; mediate, h.F., issie tebbn. nauk, dottent; Miller, V.F., kand. tekb. nauk, dotsent

ignomic testing of Class 1/21 switches. Vest. TSNIT UTS 23 no.5: 3-7 164. (MIRA 17:11)

1. leningradskiy institut ir decerov zacieznedorozimego transporta imeni Obraztsova.

YAKOVLEV, V. F.

YAKOVLEV, V. F.- "Certain Problems in Static Design of Elements of Railroad Shunting Switched." Min of Means of Transportation USSR, Leningrad Order of Lenin Inst of Engineers of Railway Transport imeni Academician V. N. Obraztsov, Leningrad, 1955 (Dissertations for Degree of Candidate of Technical Sciences)

SO: Knizhnaya Letopis' No. 26, June 1955, Moscow

"APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001961920010-2

SOV/124-58-1-1257

Translation from: Referativnyy zhurnal, Mekhanika, 1958, Nr 1, p 156 (USSR)

AUTHOR: Yakovlev, V. F.

TITLE: Influence of the Design of a Rail Switch on the Elastic Properties

of the Rail Foundation (Vliyaniye konstruktsii strelochnogo perevoda na uprugiye svoystva osnovaniya rel'sovykh nitey)

PERIODICAL: Vestn. Vses. n.-i. in-t zh.-d. transp., 1957, Nr 1, pp 53-55

ABSTRACT: The author recommends that in the design of new rail-switch

contours for the achievement of a smoother variation of the modulus

of elasticity of the rail foundation the spacing of the switch tie

rods be made equal.

Reviewer's name not given

Card 1/1

YAKOYLEY YE

133-8-27/28

AUTHORS: Grave, I.P., Smirnov, M.P., Yakovlev, V.F., (Cands'.Tech.Sc.) and Prokopyev, N.M. (Engineer).

TITLE: Jointless tracks on a monolithic foothold on metallurgical works. (Besstykovyye puti na monolitnom osnovanii v metallurgii).

PERIODICAL: "Stal:" (Steel), 1957, No.8, pp. 762-764 (USSR).

ABSTRACT: Service conditions of rails on tracks in some departments of iron and steel works (hot metal ladles, ingot tracks) are discussed. In view of heavy working conditions and difficulties in carrying out proper maintenance, the Leningrad Institute of Engineers of the Railway Transport proposed the use of monolithic concrete bases and welded rail joints for such tracks. Deficiencies and advantages of the monolithic base are discussed. Two versions of a

monolithic base (Figs.l and 2 respectively) are described. The method of fixing rails is shown in Fig.3. There are 3 figures.

ASSOCIATION: Leningrad Institute of Engineers of the Railway Transport. (Leningradskiy Institut Inzhenerov Zheleznodorozhnogo Transporta).

AVAILABLE: Library of Congress

YAKOVLEV, V.F., kandidat tekhnicheskikh nauk (Leningrad)

Apparatus for determining the trajectory of wheel nevement. Zhel.
dor. transp. 39 no.3:79 Mr '57.
(Car wheels)

(Gar wheels)

THET'YAKOV, A.D., kand. tekhn. nauk; CHURILOV, M.F., inzh.; YAKOVLEV, V.P., kand. tekhn. nauk.

Experience with maintenance of switch boxes. Put' i put. khos. no.10r 27-30 0 '57. (MERA 10:11)

(Railroads—Switches)

YAKOVLEV, V.F., kand. tekhn. nauk (Leningrad)

Frogs manufactured with an allowance for wear. Put' i put. khoz.
no. 7:16 J1 '58. (MIRA 11:7)

(Railroads-Switches)

VAKOVLEV, V.F., kand. tekhn. nauk; INTUFIN, I.S., insh.

Using electric strain gauges for investigating stresses within elements and parts. Vest. TSNII MPS[7] no.3:53-54 My '58.

(MIRA 11:6)

(Railroads--Equipment and supplies--Testing) (Strain gauges)

 YAKOVLEV, V.F.; kand.tokhn.nauk

Standards for allowable wear on frogs in connection with increase in train speeds. Zhel.dor.transp. 40 no.10:59 0 58. (MIRA 11:12) (Railroads--Switches) (Railroads--Train speed)

AMELIN, S.V., prof., zasluzhennyy deyatel' nauki i tekhniki; IVASHCHENKO,
G.I., kaud.tekhn.nauk; SMIRNOV, M.P., kand.tekhn.nauk; YAKOVLEV,
V.F., kand.tekhn.nauk

Test performance on the track of new flat-type switch boxes.
Vest.TSNII MPS 18 no.8:40-44 D '59. (MIRA 13:9)

(Bailroads--Switches)

YAKOVLEY, V.F., kand.tekhn.nauk

Unevenness of the rail line in the frog and switch area.
Shor.LIIZHT no.166:5-26 "59. (MIRA 13:6)
(Railroads--Trace)

YAKOVLEV, V.F., kand.tekhn.nauk

Effect of switch design on the stiffness of the rail lines.

Approximate static calculation of the switch point to withstand vertical forces. Shor.LIIZHT no.166:27-52 '59. (MIRA 13:6)

(Railroads--Switches)

YAKOVLEV, V.F., kand.tekhn.nauk

Contact strength of rail line elements in turnout areas.

Vest.TSNII MPS 19 no.4:47-50 '60. (MIRA 13:7)

(Railroads—Rails—Testing)

DANILOV, Vladimir Nikolayevich, doktor tekhm. nauk; KOROLEV, K.P., prof., retsenzent; YAKOVLEV, V.F., kand. tekhm. nauk, retsenzent; SER-GEYEVA, A.I., inzh., red.; BOBROVA, Ye.N., tekhm. red.

[Railroad track and its interaction with the rolling stock]
Zheleznodorozhnyi put' i ego vzaimodeistvie s podvizhnym sostavom.
Moskva, Vses. izdatel'sko-poligr. ob"edinenie M-va putei soobshchenia, 1961. 110 p.

(Railroads—Track)

SHAKHUNYANTS, Georgiy Mikhaylovich, doktor tekhn. nauk; AMELIN, S.V., prof., retsenzent; KONSTANTINOV, V.N., dots., retsenzent; SMIRNOV, M.P., retsenzent; YAKOVIEV, V.F., retsenzent; BOCHENKOV, M.S., kand.tekhn. nauk, retsenzent; BROMBERG, Ye.M., retsenzent; YERSHKOV, O.P., retsenzent; ZVEREV, B.N., retsenzent; ZOLOTARSKIY, A.F., retsenzent; IVASHCHENKO. G.I., retsenzent; LINEV, S.A., retsenzent; MARKAR YAN, M.A., retsenzent; POPOV, V.V., retsenzent; POPOV, S.N., retsenzent; SEREDRENNIKOV, V.V. retsenzent; SHAFRANOVSKIY, A.K., retsenzent; NOVITSKIY, G.I., inzh., retsenzent; VIKTOROV, I.I., kand.tekhn.nauk, retsenzent; VYSOTSKIY, A.F., kand.tekhn.nauk, retsenzent; SAATCHYAN, G.G., kand.tekhn.nauk, retsenzent; YAKOVLEVA, Ye.A., kand.tekhn.nauk, retsenzent; TITOV, V.P., kand.tekhn.nauk, retsenzent; CRUSHEVOY, N.G., inzh., red.; BROMBERG, Ye.M., kand.tekhn.nauk, red.; KHITROV, P.A., tekhn. red.

[Railroad tracks] Zheleznodorozhnyi put'. Moskva, Vses.izdatel'sko-poligr.ob"edinenie M-va putei soobshcheniia, 1961. 615 p.

(MIRA 14:12)

1. Kafedra "Zheleznodorozhnyy put'" Leningradskogo instituta inzhenerov zheleznodorozhnogo transporta (for Amelin, Konstantinov, Smirnov,
Yakovlev). 2. Vsesoyuznyy nauchno-issledovatel'skiy institut zheleznodorozhnogo transporta (for Bochenkov, Bromberg, Yershkov, Zverev, Zolotarskiy, Ivashchenko, Linev, Markar'yan, Popov, V.V., Popov, S.N.,
Serebrennikov, Shafranovskiy, Novitskiy).3.Vsesoyuznyy nauchno-issledovatel'skiy institut transportnogo stroitel'stva(for Viktorov, Vysotskiy,
Saatchyan, Yakovleva, Titov)

(Railroads—Track) (Railroad engineering)

 AMELIN, S.V., doktor tekhn. nauk, prof.; SMIRNOV, M.P., kand. tekhn. nauk, dotsent; YAKOVLEV, V.F., kand. tekhn. nauk, dotsent

Investigating the wear resistance of the elements of the switch assembly. Sbor. trud. LIIZHT no.188:5-62 '62. (MIRA 16:7)

(Railroads-Switches)

AMELIN, S.V., doktor tekhn. nauk. prof.; SMIRNOV, M.P., kand. tekhn. nauk, dotsent

Problems of track and rolling stock interaction within the area of switch tracks. Sbor. trud. LIIZHT no.188:63-117 '62.

(MIRA 16:7)

(Railroads—Track) (Railroads—Rolling stock)

AMELIN, S.V., doktor tekhn. nauk, prof.; SMIRNOV, M.P., kand. tekhn. nauk, dotsent; YAKOVLEV, V.F., kand. tekhn. nauk, dotsent

Investigating the performance of flat type switch assembly elements in case of various wear conditions of the car wheel treads. Sbor. trud. LIIZHT no.188:118-150 '62. (MIRA 16:7)

(Railroads-Switches)

AMELIN, S.V., prof., doktor tekhn, nauk; IVASHCHENKO, G.I., kand, tekhn, nauk; SMIRNOV, M.P., kand, tekhn, nauk; YAKOYLEV, V.F., kand, tekhn, nauk; Deformations and stresses in the 1/18 mark switches. Vest. TSNIIMPS 21 no.7:45-48 '62. (MIRA 15:12) (Railroads—Switches)

AML016854

BOOK EXPLOITATION

s/

Yakovlev, V. F.

Measurement of strains and stresses in machine parts (Izmereniya deformatsiy i napryazheniy detaley mashin), 2d ed., rev. and enl., Moscow, Mashgiz, 1963, 191 p., illus., biblio., 4,800 copies printed.

TOPIC TAGS: stress, strain, machine part, railroad wheel, railroad rail, contact stress, internal stress, static loading, dynamic loading, microgage, epoxy resin, stress concentration, tensometer, electrotensometer

PURPOSE AND COVERAGE: The book discussed methods of experimental measurement of stresses and strains within machine parts. The bases of the new method of measurement of stresses at internal points of parts using baseless ohm-resistance microgages are cited. The practical use of this method is illustrated in the solution of a number of contact and other problems in the study of spatial stressed state of parts in static and dynamic loading. I. S. Inyutin participated in the development of the methodology. The book is intended for engineers, technicians, and researchers who study mechanical stress and strain.

Card -2/2>

AMELIN, S.V., prof. (Leningrad); SMIRNOV, M.P., dotsent (Leningrad);
YAKOTIEV, V.F., dotsent (Leningrad)

Facts learned from research and experience. Put' i put. khoz.
7 no.5:21-24 '63. (MIRA 16:7)

(Railroads—Track)

YAKOVLEV, V.F., kand. tekhn. nauk

Investigating the dynamic contact deformations of rails. Vest. TSNII MPS 22 no.4:44-46 '63. (MIRA 16:8)

1. Leningradskiy institut inzhenerov zheleznodorozhnogo transporta im. V.N. Obraztsova.

(Railroads—Rails—Testing)

AMELIN, S.V., doktor tekhn.nauk; SHIRNOV, M.P., kand.tekhn.nauk; YAKOVLEV, V.F., kand.tekhn.nauk

Train speed over switches. Put' 1 put.khoz. 8 no.6:30-33 '64. (MIRA 17:9)

YAKOVLEV, V.F.

Using a centralized feeding system for butt-joint heaters in the welding of pipes in Yakutia. Stroi. truboprov. no.9:17-18 S '64. (MINA 17:10)

1. Trest Nefteprovodmontazh, Ufa.

KRASKOVSKIY, Ye.Ya., kand.tekhn.nauk; TRET'YAKOV, A.V., kand.tekhn.nauk; YAKOVLEY, V.F., kand.tekhn.nauk; BONDYUGIN, V.M., inzh.; ABROSIMOV, V.I., inzh.

Studying rolling friction on roll models. Sbor. st. NIITIAZHMASHa Uralmashzavoda no.6:189-205 '65.

(MIRA 18:11)

YAKOVLEV, V.F., kand.tekhn.nauk; TRETYYAKOV, A.V., kand.tekhn.nauk; KRASKOVSKIY, Ye.Ya., kand.tekhn.nauk; BONDYUGIN, V.M., inzh.; ABROSIMOV, V.I., inzh.

Studying contact stresses by means of electric tensometric roll models. Sbor. st. NIITIAZHMASHa Uralmashzavcda no.62211-227 '65. (MIRA 18:11)

AMELIN, S.V., prof. (Leningrad); SMIRNOV, M.P., dotsent (Leningrad);
YAKOVLEV, V.F., dotsent (Leningrad)

Results of experimental trips. Put' i put. khos. 9 no.10:
17-19 '65. (MIRA 18:10)

YAKOVLEV, V.F., doktor tekhn. nauk

Dynamic forces in the contact between wheel and rail. Vest. TSNII MPS 24. no.5:3-9 '65. (MIRA 18:9)

1. Leningradskiy institut inzhenerov zheleznodorozhnogo transporta.

	L 32990-66 EMT(1)/EMF(e)/EMT(m)/EMP(j)/T/EMP(k) RM/MH ACC NR: AR6016270 AUTHOR: Leonova, L. A.; Yakovlev, V. F. TITLE: Investigation of the absorption of ultrasound waves in mixtures of ethyl SOURCE: Ref. zh. Fizika, Abs. 11Zh427 REF SOURCE: Ref. zh. Fizika, Abs. 11Zh427 REF SOURCE: Sb. Primeneniye ul'traakust. k issled. veshchestva. Vyp. 20, M., 1964, REF SOURCE: Measurements were made of the absorption of ultrasound in a mixture of acoustic measurement, ACOUSTIC FREQUENCY ABSTRACT: Measurements were made of the absorption of ultrasound in a mixture of ethyl acetate and acetic acid at frequencies 1 - 10 Mcs. Mixtures of eight concentrations were investigated: 1.13, 3.2, 4.45, 6, 8.24, 10, 12, and 14 wt.% of acetic acid. Starting with the concentration 3.2% and higher, the curves showing the frequency dependence of the coefficient of absorption in one wavelength exhibits a clear quency dependence of the coefficient of absorption in one wavelength exhibits a clear quency dependence of the coefficient of absorption in one wavelength exhibits a clear quency dependence of the coefficient of absorption in one wavelength exhibits a clear quency dependence of the coefficient of absorption in one wavelength exhibits a clear quency dependence of the coefficient of absorption in one wavelength exhibits a clear quency dependence of the coefficient of absorption in one wavelength exhibits a clear quency dependence of the coefficient of absorption in one wavelength exhibits a clear quency dependence of the coefficient of absorption in one wavelength exhibits a clear quency dependence of the coefficient of absorption in one wavelength exhibits a clear quency dependence of the coefficient of absorption in one wavelength exhibits a clear quency dependence of the coefficient of absorption in one wavelength exhibits a clear quency dependence of the coefficient of absorption in one wavelength exhibits at the coefficient of absorption of the curves showing the flux method. To increase the reliability makes the coefficient
VIII I	Card 1/2

L 32990-66 ACC NR: AR6016270 measurement by determining the der	nsity and refractive index.	Data are also present	ed
measurement by determining the der for the frequency dependence of the acid at temperatures, -30, -20, -20, of abstract]	ne absorption in a mixture of 10, 0, 10, 20, 30, and 40C.	I. Chaban. [Translat	ion
SUB CODE: 20		•	
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Card 2/2 /D/			

WW/GG SOURCE CODE: UR/0058/65/000/010/E005/E005 EWT(d)/EWT(l) T. 46031-66 ACC NR: AR6013647

AUTHOR: Yakovlev, V. F.

REF SOURCE: Uch. zap. Mosk. obl. ped. in-ta, v. 147, 1964, 33-44

TITIE: An attempt to establish an approximation theory for the liquid state.

SOURCE: Ref. zh. Fizika, Abs. 10E27

TOPIC TAGS: liquid state, equation of state, approximation method, /NTERNAL

TRANSLATION: An analysis of the general properties of liquids based on the approximation theory for the liquid state of ideal thermal systems is made. The internal energy of an ideal thermal system is given by an approximate expression of the form:

U = E(T) + G(v) + H(b),

where E(T) is that part of the internal energy which is connected with the translational motion of the molecules and the excitation of rotational and vibrational energy levels with respect to the ground state; G(v) is determined by the potential energy of the particles and depends on the average distance between them; and H(b) is the structural part of the internal energy and depends on the effective volume occupied by the molecules. The initial structural compressibility of organic liquids is close to zero, i. e., $(\partial b/\partial v)_T = 0$ (b is the effective volume occupied by the molecules). The intern-

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ACC NR: AR6013647

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al pressure of the liquid P_i , the coefficient of thermal expansion β_p and the coefficient of isothermal compressibility β_T are calculated on the basis of this equation of state. For mercury at 20°C ($\beta_T = 3.87 \cdot 10^{-6} \text{ atm}^{-1}$), the value of $(3b/3v)_T = 0.572$. The internal pressure $P_i = R/\beta_p \cdot v$. In organic liquids, an increase in pressure of 1 atm brings about an increase in molecular pressure of 3 to 5 atm. The thermal expansion calculated on the basis of this model gives a satisfactory agreement with experiment (error ~ 31). Ye. Prokop'yev.

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SUBM DATE: none

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2/2

ACC NR: A	R6013650	EWT(in), EWP(j) 111/011/00	SOURCE CODE:	UR/0058/	65/000/010/	E005/E005
UTHOR: Ya	kovlev,	/. F.				•.	B
EF SOURCE:	Uch. za	p. Mosk. obl	. ped. in-ta	y. 147, 19	64, 65-77	\$	
TITLE: An	attempt '	to establish	an approxima	ntion theory	for the li	quid state.	IV
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			_		diffusion	and therma	al conducti
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rransLation vity of sing formulas g models, ax kinetic pr	N: Formumple and ive a sat ioms and operties	las for the opolyatomic listactory again	calculation of iquids are present with	of <u>viscosity</u> roposed. Co experimenta	l values. describing	This justify thermal,	fies the

UR/0058/65/000/010/E005/E005 WW/JW/GG/RM SOURCE CODE: EWT(1)/EWT(m)/EWP(j) 10 ACC NRI AR6013648 B AUTHOR: Zakharov, A. A.; Yakovlev, V. F. REF SOURCE: Uch. zap. Mosk. obl. ped. in-ta, v. 147, 1964, 45-54 TITLE: An attempt to establish an approximation theory for the liquid state. SOURCE: Ref. zh. Fizika, Abs. 10E28 TRANSLATION: The values of C_i , C_{pi} , γ_i , C_v , $\gamma = C_p/C_v$ for mercury and a number of organic liquids (benzene, chlorobenzene, bromobenzene, toluene, p-xylene, cyclohexane, carbon tetrachloride, chloroform and n-hexane) were obtained using a model of the carbon tetrachloride, chloroform and n-hexane) were obtained using a model of the carbon tetrachloride, chloroform and n-hexane) were obtained using a model of the carbon tetrachloride, chloroform and n-hexane) were obtained using a model of the carbon tetrachloride, chloroform and n-hexane) were obtained using a model of the carbon tetrachloride, chloroform and n-hexane) were obtained using a model of the carbon tetrachloride, chloroform and n-hexane) were obtained using a model of the carbon tetrachloride, chloroform and n-hexane) were obtained using a model of the carbon tetrachloride, chloroform and n-hexane) were obtained using a model of the carbon tetrachloride, chloroform and n-hexane) were obtained using a model of the carbon tetrachloride, chloroform and n-hexane) were obtained using a model of the carbon tetrachloride, chloroform and n-hexane) were obtained using a model of the carbon tetrachloride, chloroform and n-hexane) were obtained using a model of the carbon tetrachloride, chloroform and n-hexane) were obtained using a model of the carbon tetrachloride, chloroform and n-hexane were obtained using a model of the carbon tetrachloride, chloroform and n-hexane were obtained using a model of the carbon tetrachloride, chloroform and n-hexane were obtained using a model of the carbon tetrachloride tetrachlorid TOPIC TAGS: liquid state, approximation method city at constant pressure). Here, C_i is heat capacity at constant internal volume, $\gamma_i = c_{pi}/c_i$ is the adiabatic change of internal volume, and c_{pi} is heat capacity at constant internal pressure. For organic liquids, Y; does not differ appreciably from unity. Calculations made for toluene showed that γ_i decreases slightly with an increase in temperature. Theoretical equations are obtained which enable one to calcu-Card 1/2

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ACC NR: AR6013648

late the heat capacities of mono- and polyatomic liquids. The heat capacity of mercury calculated from these equations is in satisfactory agreement with known experimental data in the broad temperature range of 0-500°C. The agreement is somewhat worse for liquid metals (sodium, lead, bismuth, tin and potassium), but nevertheless quite satisfactory. For polyatomic organic liquids (carbon tetrachloride, toleune and benzene) the agreement with experimentally obtained heat capacity data is very good. Ye. Prokop'yev.

SUB CODE: 20/ SUBM DATE: none

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CIA-RDP86-00513R001961920010-2 EMI(1)/EMT(m)/EMP(j) ACC NR: AR6013649 WW/JW/GG/RM AUTHOR: Yakovlev, V. F. SOURCE CODE: UR/0058/65/000/010/E005/E005 REF SOURCE: Uch. zap. Mosk. obl. ped. in-ta, v. 147, 1964, 55-64 TITLE: An attempt to establish an approximation theory for the liquid state. SOURCE: Ref. zh. Fizika, Abs. 10E29 TOPIC TAGS: equation of state, heat of vaporization TRANSLATION: Equations of state for liquid media, derived in part I, are used for the evaluation of sound velocity in organic liquids (benzene, chlorobenzene, bromobenzene) bromobenzene, toluene, p-xylene, cyclohexane, carbon tetrachloride, chloroform and n-hexane).

The test of results based on the acid adiabatic properties of liquids confirmed that The test of results based on the acid adiabatic properties of liquids confirmed that $\Lambda = RT \ln P_i / P + \frac{1}{2} P_i (b_c - b_l) + RT$ describing the vaporization of liquids is obtained, where P_i is the internal (kinetic) pressure of liquid, P is the external pressure, b_c and b_l are the effective volumes occupied by the molecules at the critical point and in the liquid state, respectively. Using this formula, the calculated heats of vaporization at the boiling point (P=1 atm)

CIA-RDP86-00513R001961920010-2" APPROVED FOR RELEASE: 03/14/2001

for mercury, benzene, chlorobenzene, bromobenzene, tottene, p with experimental value bon tetrachloride, chloroform, n-hexane are in good agreement with experimental value. The deviation from experimental data does not exceed 5%. For toluene, benzene and combon tetrachloride, the heats of vaporization are calculated for different temperature. These results confirmed that the calculated heats of vaporization are of sufficiently high accuracy. Ye. Prokop'yev.							
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DANILOV, V.N., doktor tekhn. neuk, prof.; YAKOVLEV, V.F., kand. tekhn. neuk; SEMENOV, I.J., inzh.

Dynamic characteristics of the rail support. Vest. TSNII MP3 (MIRA 18:3)

1. Moskovskiy i Leningradskiy instituty inzhenerov zheleznodorozhnogo transporta.

SMIRNOV, M.P., kand. tekhn. nauk (Leningrad); YAKOVLEV, V.F., kand. tekhn. nauk (Leningrad)

Performance of screw pikes under train loads. Put' i put. khoz. 9 no.2: 34-35 '65, (MIRA 18:7)

YAKOVLEV, V.F.

Device for unloading pipes from trucks. Stroi. truboprov. 15 no.2: 29 F '65. (MIRA 18:5)

1. Master Stroitel'nego upravleniya No.3 tresta Nefteprovedmentazh, Novesibirsk.

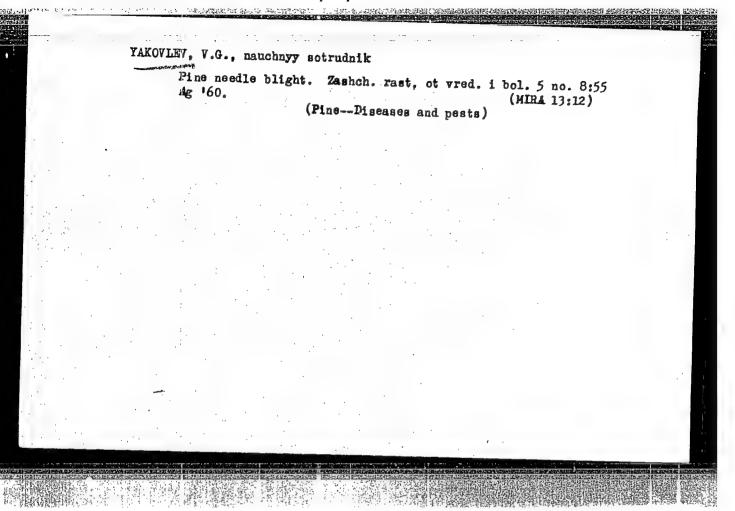
KRASKOVSKIY, Yo.Ya., kand. tekhn. nauk, dotsent; YAKOVIEY, V.F., kand. tekhn. nauk, dotsent; ABROSIMOV, V.A., ingh.

Experimental study of pressure distribution in the friction of journal bearings of construction machinery. Sbor. t ad. LHIZHT no.201:137-148 63. (MIRA 17:12)

MARKOVICH, N.M.; YAKOVLEV, V.G.

Self-propelled boring machine. Gor. zhur. no.8:77 Ag '64.

(MIRA 17:10)



MASSEN, V.A.; MILOSLAVSKIY, I.L.; PAVLOV, S.P.; POGODILOV, M.N.; SHEVELEV, A.Ye.; KUNITSA, S.S.; YAKOVLEV, V.G.; CHESNOKOV, V.K.; KRYLOV, B.F.; SHIKHANOVICH, B.A.; YAITSKOV, S.A.

Proposals awarded prizes at the 16th All-Union Contest for Electric Power Economies. Prom.energ. 17 no.10;12-14. 0 (MIRA 15:9)

'62. (Technological innovations—Competitions)

BABENKO, V.A., inzh.; BRYUKHANOV, A.N., kand.tekhn.nauk; VLADIMIROV, M.F., inzh.; GERSHMAN, M.S., inzh.; GLUSHKOV, V.N., inzh.; GOLOVNEV, I.F., inzh.; GOSTEV, V.I., inzh.; KEREKESH, V.V., inzh.; MALIKOV, A.N., inzh.; MANSUROV, A.M., inzh.; MARTYNOV, V.N., kand.tekhn.nauk; MYSOZHNIKOV, V.M., kand.tekhn.nauk; NAVROTSKIY, G.A., kand.tekhn.nauk; RASKIND, V.L., inzh.; REBEL'SKIY, A.V., kand.tekhn.nauk; SKVORTSOV, A.A., kand.tekhn.nauk; SOKOLOV, I.G., kand.tekhn.nauk; STOROZHEV, M.V., kand.tekhn.nauk; FEDOROV, A.F., inzh.; KHRZHANOVSKIY, S.M., prof., doktor tekhn.nauk; TSUKERMAN, M.T., inzh.; SHAPOSHNIKOV, D.Ye., inzh.; SHEPELYAKOVSKIY, K.Z., kand.tekhn.nauk; SHMYKOV, A.A., dektor tekhn.nauk; YAKOVLEV, V.G., inzh.; KIRSANOVA, S.B., inzh., red.; GLINER, B.M., inzh., red.izd-va; SOKOLOVA, T.F., tekhn.red.

[Technological handbook on forging and die forging] Teknnologicheskii apravochnik po kovke i ob emoi shtampovke. Moskva, Gos.nauchno-teknologicheskii apravochnik po kovke i ob emoi shtampovke. Moskva, Gos.nauchno-teknologicheskii apravochnik po kovke i ob emoi shtampovke. Moskva, Gos.nauchno-teknologicheskii apravochnik po kovke i ob emoi shtampovke. Moskva, Gos.nauchno-teknologicheskii apravochnik po kovke i ob emoi shtampovke. Moskva, Gos.nauchno-teknologicheskii apravochnik po kovke i ob emoi shtampovke. Moskva, Gos.nauchno-teknologicheskii apravochnik po kovke i ob emoi shtampovke. Moskva, Gos.nauchno-teknologicheskii apravochnik po kovke i ob emoi shtampovke. Moskva, Gos.nauchno-teknologicheskii (MIRA 12:4).

"Engineering specifications for making and rebuilding dies." A. N. Bryukhanov and V. G. Yakovlev (Engr.) p. 823

YAKOVLEV.

AUTHORS: Ganich, A.A., Zarubin, V.F. and Yakovlev, V.G. (Engineers).

Automatic gathering and weighing of blast furnace burden materials with a conveyor belt delivery to skips. TITLE:

(Avtomaticheskiy nabor i vzveshivaniye shikhty dlya domennoy pechi pri transporternoy podache v skip).

PERIODICAL: "Stal" (Steel), 1957, No.6, pp. 496-500 (USSR).

ABSTRACT: A project of automation of gathering, weighing and conveyor belt delivery of burden materials to skips for one of the Magnitogorsk furnaces designed by Gipromez and the Sverdlovsk Branch of the Tyazhpromelektroproyekt is des-cribed (Figs.l and 2). Operating conditions: furnace output - 2500 ton/day with 270 five-skip charges/day; 5 burden components - sinter, manganese addition (manganese ore and open hearth slag); acid additions, limestone and coke; charging sequence can be varied. The diagram of the operation of the burden gathering system for various charging sequences is shown in Fig.3. It is expected that a considerable increase in the efficiency of burden delivery will be obtained with a simultaneous 7.4% decrease in the weight of the equipment (from 367 to 340 ton/furnace).

There are 3 figures.

Card 1/2

133-6-4/33

Automatic gathering and weighing of blast furnace burden materials with a conveyor belt delivery to skips. (Cont.)

ASSOCIATION: Magnitogorsk Branch of Gipromez. (Magnitogorskiy Filial Gipromeza).

AVAILABLE: Library of Congress

Card 2/2

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8/207/63/000/002/003/025

AUTHOR:

Yakovlev. V. I. (Novosibirsk)

77

TITLE:

mandition interaction between expanding plas 1 pinch and external

electric circuit

PERIODICAL:

Zhurnal prikladnov mekhaniki i tekhnicheskov fiziki, no. 2,

1963, 31-38

TRXT: The inductive interaction between a pulsed plasma current and an external electric circuit not containing other seats of emf has been studied for the case of a simple solenoid surronding an expanding plasma pinch. For a given hydrodynamics of the plasma and assuming that 1 - the length to radius ratio of the solenoid is large, 2 - the plasma expansion is uniform, 3 - the plasma conductivity is constant over the pinch radius and is inversely proportional to the square of the radius, 4 - displacement current can be neglected, and 5 - the magnetic permeability of the plasma is equal to 1, the author calculates the curves for currents induced within the external circuit and the time variations of the magnetic field within the plasma, assuming no such field at the initial instant of time. He then proceeds to calculate and plot the energy supplied by the plasma to the magnetic field, to

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Induction interaction ...

the load in the external circuit, and to the heat developed within the plasma itself. He shows also that the energy supply to the outer circuit is possible only for values of the magnetic Reynolds number exceeding a certain critical value. Results can be used for the efficiency estimate of energy conversion from a moving plasma into electrical energy. The problem was suggested by L. A. Zaklyaz minskiy. There are 5 figures.

SUBMITTED: December 27, 1962

Card 2/2

MOCHALIN, M.P., kand.tekhn.nauk; MARSHEV, A.S., inzh.; YAKOVLEV, V.G., inzh.

SBU-2 and SBu-4 self-propelled drilling rigs. Gor. zhur. (MIRA 15:11) no.6:56-58 Je 162.

 Institut gornogo dela im. Skochinskogo (for Mochalin).
 TSentral'nyy nauchno-issledovatel'skiy i proyektnokonstruktorskiy institut podzemnogo shakhtnogo stroitel'stva, Moskva (for Marshev, Yakovlev). (Boring machinery)

MARKOVICH, N.M.; YAKOVLEY, V.C.

Introducing the SSG-4 automobile are defilling unit. Biul. tekh.-ekon.info ,Gos.nauch.-issl.inst.nauch.1 & kh.inform. 18 no.1217-19 Ja 165. (MIRA 18:4)

YAKOVLEV, Vadim Grigor'yevich

(Central Sci Res Inst of physical Culture), Academic degree of Doctor of Pedagogical Sciences, based on his defense, 25 November 1954, in the Council of the Sci Res Inst of Theory and History of Pedagogy of the Acad of Pedagogical Sci RSFSR, of his dissertation entitled: "Active games in the theory and practice of physical education of school-age children."

Academic degree and/or title: Doctor of Sciences

SO: Decisions of VAK', List no. 24, 26 Nov 55, Byulleten' MVO SSSR, Nol 20, Oct 57, Moscow, pp 22-24, Uncl. JPRS/NY-471

Yakovlav, V. G.

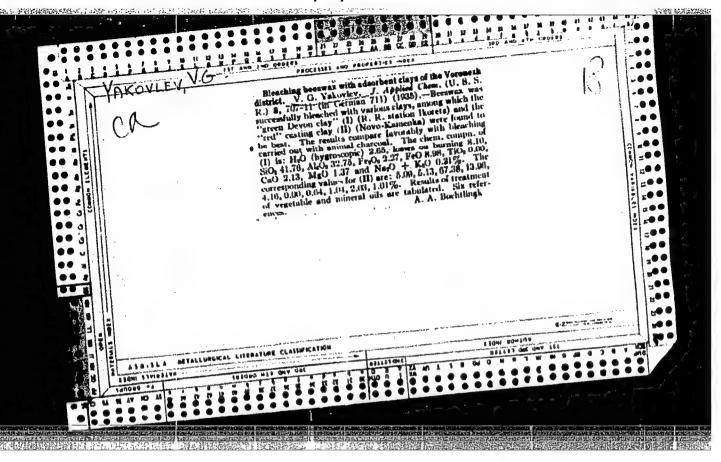
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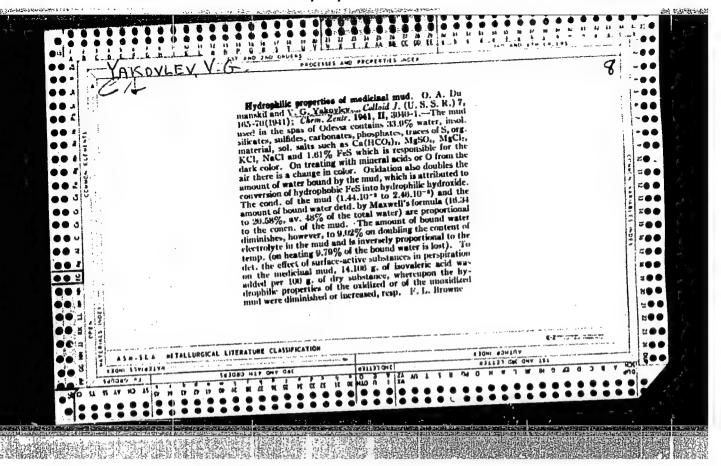
Dissertation: "Hydrolytic Capacity of Albumin in Relation to the Asymmetry of Its Molecules."

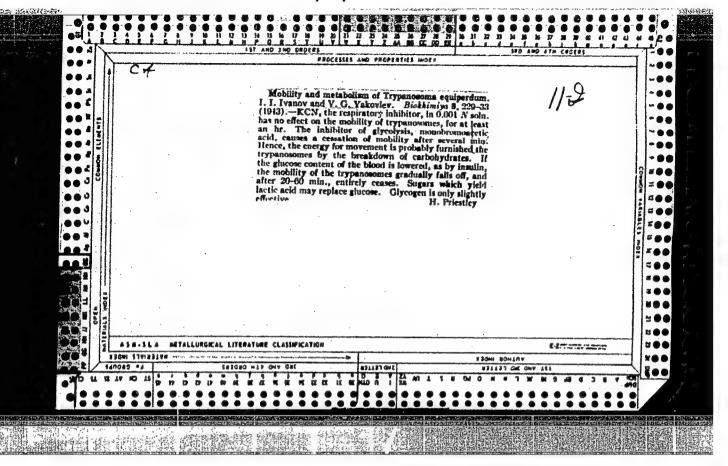
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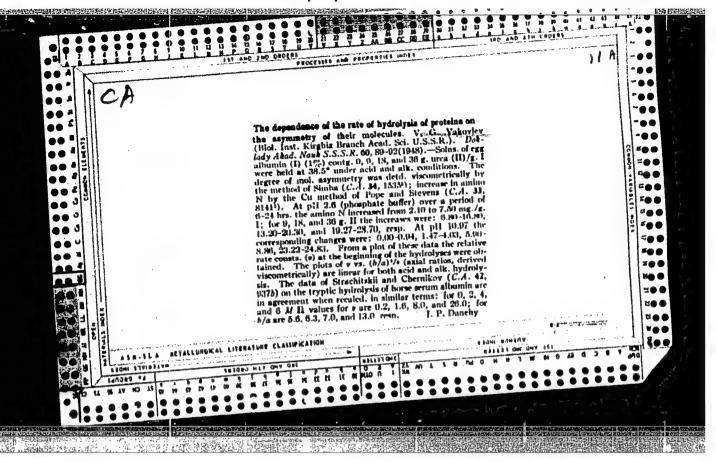
Inst of Biochemistry imeni A. N. Bakh, Acad Sci USSR

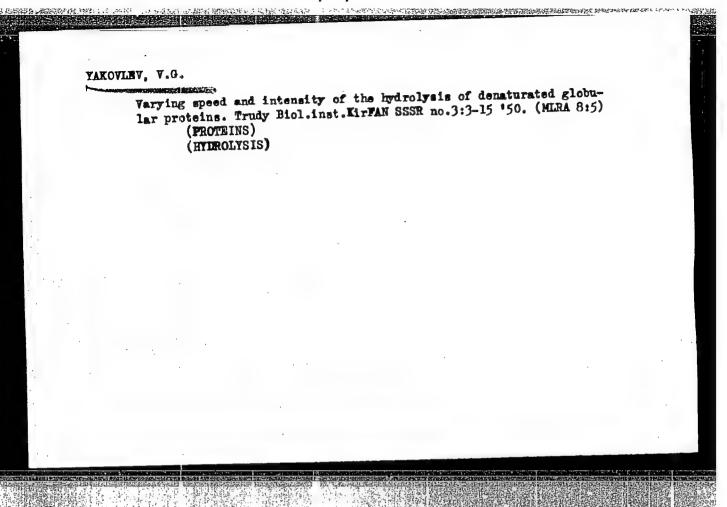
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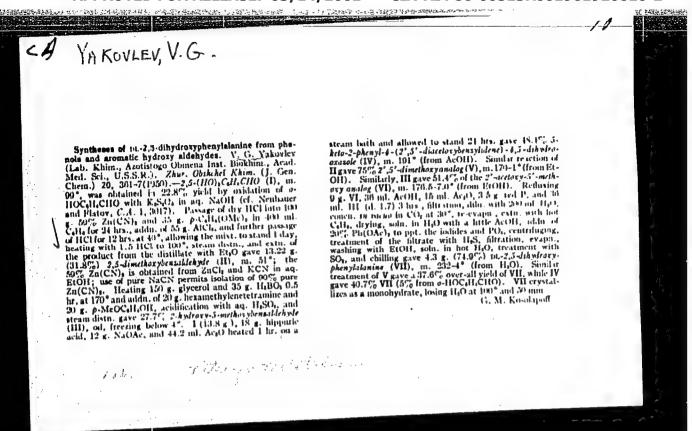


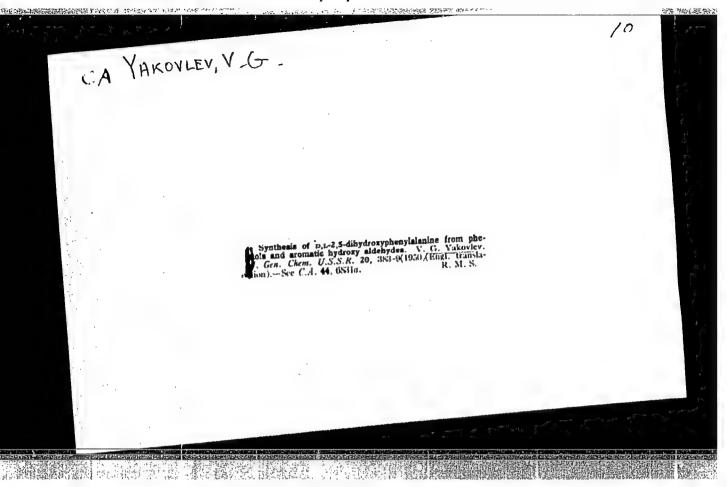




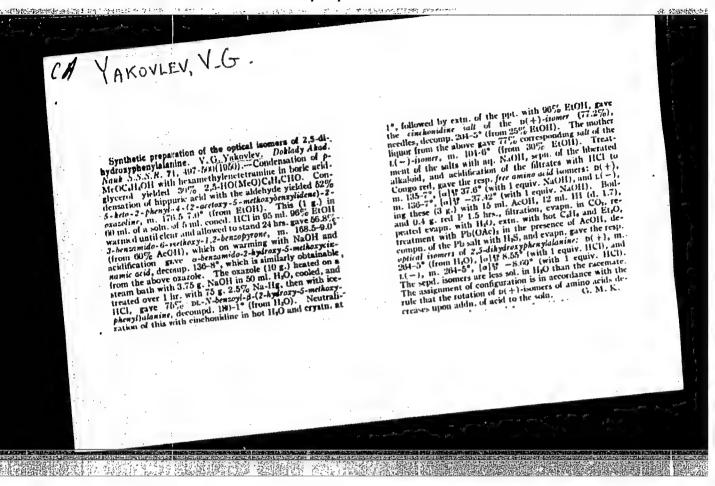


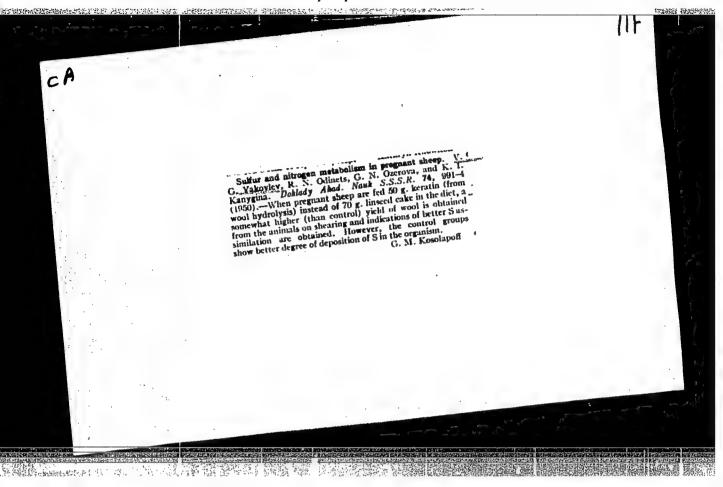






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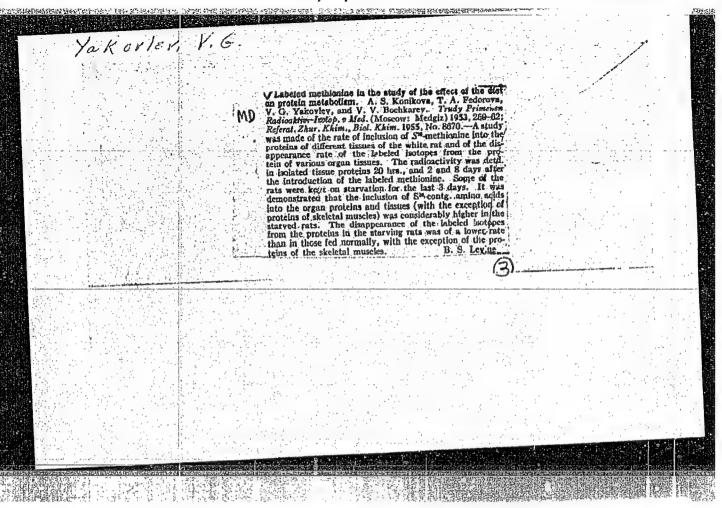
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(KERATIN) (WOOL)



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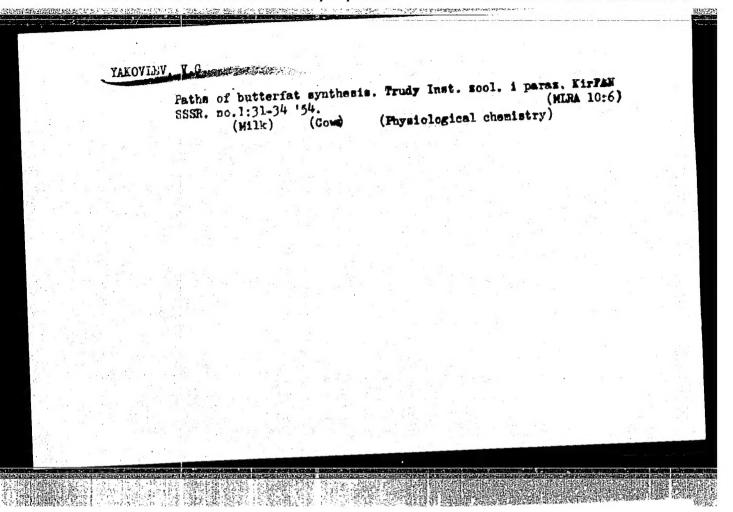
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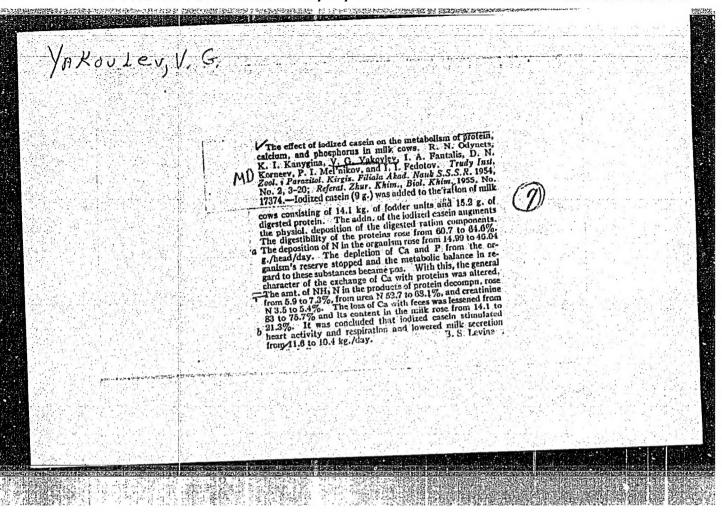
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YAKOVLEV, V.G.; MISHCHENKO, I.K.

Data en the electrepheretic study of serum preteins in the arterial and veacus bleed of cave. Izv.AN Kir.SSR ne.1:81-89 '55. (MIRA 9:9)

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